Reviewer’s report

Title: Anti-atherosclerotic Function of Astragali Radix Extract: Downregulation of Adhesion Molecules in Vitro and in Vivo

Version: 4 Date: 7 February 2012

Reviewer: Haw-Wen Chen

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General comments:
In this study, Astragali Radix Extract (ARE) was used to treat SVEC4-10 cells and demonstrate its anti-atherosclerotic effect is via inhibition of TNF-#-induced ICAM-1 and VCAM-1 expression. This inhibition is mediated by down-regulating TNF-#-induced NF-#B signaling pathway. The same result was found in apoE-/-mice.

Major concerns:
1) Although inhibition of TNF-#-induced inflammation by ARE was demonstrated in SVEC4-10 cells, the possible cytotoxic effect of ARE was not provided. Suggest to perform cell viability assay in the presence of TNF-# and concentrations of ARE used in the cell culture study.
2) Please put a scale bar in the Figures 1A and 1B.
3) Was total protein was used to assess NF-#B expression in Figure 3A? Since activated NF-#B is located in nucleus, and suggest to perform nuclear NF-#B protein expression.
4) Please provide the animal diet composition.
5) There are still some spelling and grammar errors in this manuscript, and please double check again.
6) In p14, “We demonstrated that ARE regulated VCAM-1 and ICAM-1 expression levels through activation of the NF-#B pathway in SVEC cells.” should be changed to “We demonstrated that ARE regulated VCAM-1 and ICAM-1 expression levels through down-regulation of the NF-#B pathway in SVEC cells.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.